



Stephen



When I was an eight-year-old kid in Chicago, my father gave me a little crystal radio set for my birthday, and that started me off spending a lot of time down in the basement, tinkering with electronic equipment, radios, and television sets. At an early age I had a lot of talent and interest in electronics and electricity as well as music, flow, time. The genesis of the

## Synthesis

synthesizer goes pretty far back in my mind, and when most other people were occupying themselves with other things, I was in there learning electronics. I used to sketch out TV schematics. I didn't know what I was doing at first, but I knew that sooner or later I would be able to make sense out of the whole thing.

Well, the day arrived five or siz years ago. Almost exactly in parallel with Paik's development of the synthesizer, I was working on my own version of electronic graphic arts. I was at the University of Illinois, Urbana, at the time. I was determined to work with electronic imagery. More than anything I was fascinated by the experience of color, with what color could convey, express, like "green with envy," or "red with rage," or "true blue." With this motivation and access to a color television set, I began in 1968 to construct the Number O Direct Video Synthesizer.

## Beck

In 1970 I was fortunate enough to be invited by Bruce Howard to be an artist in residence for a year at the National Center for Experiments in Television in San Francisco. This enabled me to make a big jump from the ideas and designs I evolved, most of which developed in two or three weeks' time and yet took three or

four years of very patient work -- thousands of soldered connections -- before the real thing materialized. In the process I gained the ability to sit down and play images as one can sit at a piano and play music.

In 1972, on Channel 9 in San Francisco, I had an opportunity to bring the synthesizer into the studio, and to perform in a live broadcast, the first of a series of works which involved playing "live" imagery with recorded music. I had the most incredible day -- while I worked, my eyes were constantly on the screen. I've never really watched what my fingers and hands are doing, but for a moment while watching it, I could glance over and see my hands moving around, independent of anything that I was trying to make them do. At the same time, I had a great sensation of penetration or eruption of this imagery into me, through me, through the synthesizer onto the screen. If you play a musical instrument, you can start playing, and become somewhat detached, by yielding to something that's more than yourself, and you can play beautiful music and sounds. You can have that same experience with images.

The whole idea of the synthesizer as I conceive it is that of an electronic sculpting device. The circuit cards are the "works," the inside where it's all happening, hand-crafted. There are between thirty and forty soldered connections which are structured on these circuit cards. These don't make the image per se, but they give me a means of shaping and sculpting and forming the electronic current flow, which, when translated into the video picture, takes on quality and shape and texture and form, movement and color -- the basic visual ingredients I work with.

It's an architecture of its own at this level, and if you were able to stick your head in back here, it might give you some sense of just what the connection is between the technology and the graphics. You see, there are thousands and thousands of individuals responsible for the parts and components which go into making up the synthesizer. So in no way can you think of any one of us synthesist artists as being separated from this tremendous base within the culture itself. I don't really see the problem of a separation between art and technology; you can't have one without the other.

The principle of operating a synthesizer involves connecting circuit cards with patch cords to other circuit cards to establish a relationship between the basic inner ingredients. In other words, video is like food: I've got flour, salt, and honey, the basic ingredients -- but I have a very flexible and open-ended recipe with which to interrelate them. I approached video graphics trying not to come up with an infinity of images but with a very good set of interrelationships between basic image ingredients.

I'm always being asked, "Did you make the synthesizer and then see what kind of imagery it would make, or did you know what kind of imagery you wanted to make with it and then construct the instrument?" This is the way it happened. I had a clear sense of electronics, and in order to model or structure the technological bits and pieces into some workable graphic structure I spent about two years looking at everything I saw from behind the retina, behind the eyeball, from within, and finally arrived at a graphic model on which to base the synthesizer. Any structure is only as useful as you want it to be, and this structure enabled me to build the instrument. I wouldn't swear by it,

but it does represent for me a connection between the vision, the graphics, and the technology.

The quality of movement, dynamics, or shade, as I look at my work right now, is probably the least developed, and I'm trying to focus on this the most. And then extending the plane and surface one more level into that of circular volume and space for perspective.

Another quality I decided on was texture. Texture and form or texture and line are inseparable, and the relationship of these elements comes to bear on the image, but when you build a circuit, that doesn't matter. What does matter is these tangibles and the ability to relate them. Once I had defined them, I was able to build and extend my work with graphics much closer to where my own visions are right now.

Another quality that I've used in my work is video feedback. I think it's one of the most interesting aspects of video, the imagery that results from the television set in a self-meditative state. Input is focused on output, its eye focuses on its vision, and in this meditative state it creates specific graphic imagery.

The role that spiritualism, mysticism, esotericism play in social and political change is crucial. If we don't balance our nature, which contains all things, if we don't constantly keep in touch with all the different sides of our nature, we run the risk of becoming too materialistic or too mystic. This is a problem I am concerned with in my work. If you every look at the back of a dollar bill, you'll see a pyramid and a spiritual eye ready to be placed on it. To me, the pyramid which is on every buck that runs this country is waiting to be combined with the spiritual eye: all the pocketbooks together with the practical achievement and visual knowledge that we've come to so far.